

Message

From: Lindstrom, Andrew [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=04BF7CF26AA44CE29763FBC1C1B2338E-LINDSTROM, ANDREW]
Sent: 5/24/2018 12:22:40 PM
To: Washington, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fdc3e8ce9f1d45c4894881ff420ca104-Washington, John]
Subject: FW: GenX and other PFAS in Delaware River

From: Bergman, Erica [mailto:Erica.Bergman@dep.nj.gov]
Sent: Wednesday, May 23, 2018 4:55 PM
To: MacGillivray, Ron <Ron.MacGillivray@drbc.nj.gov>; Strynar, Mark <Strynar.Mark@epa.gov>; Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>
Cc: Post, Gloria <Gloria.Post@dep.nj.gov>; Suk, Namsoo <Namsoo.Suk@drbc.nj.gov>; Yagecic, John <John.Yagecic@drbc.nj.gov>; Goodrow, Sandra <Sandra.Goodrow@dep.nj.gov>; Dudar, Helen <Helen.Dudar@dep.nj.gov>
Subject: RE: GenX and other PFAS in Delaware River

Ron,
We looked into getting a Solvay effluent sample for analysis as part of the DEP-EPA PFAS study, but were not successful. It would be great to get an actual undiluted effluent sample, however **Ex. 5 Deliberative Process (DP)** **Ex. 5 Deliberative Process (DP)** to allow us to get a sample from within their plant prior to discharge. Solvay does collect effluent samples monthly from within the plant prior to discharge, and they analyze for PFAS via EPA Method 537; results are reported to DEP's NJPDES discharge to surface water permitting program. My program had inquired with NJPDES permitting regarding their ability to get split samples of Solvay's effluent, however since this was not written into their permit, they were unable to pursue it **Ex. 5 Deliberative Process (DP)**

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP) The hope would be to use the results as part of our PFAS study, **Ex. 5 Deliberative Process (DP)**
Ex. 5 Deliberative Process (DP)

Erica Bergman

New Jersey Department of Environmental Protection
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401 E. State Street - Mail Code 401-05F
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From: MacGillivray, Ron
Sent: Wednesday, May 23, 2018 10:30 AM
To: Strynar, Mark <Strynar.Mark@epa.gov>; Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>

Cc: Post, Gloria <Gloria.Post@dep.nj.gov>; Suk, Namsoo <Namsoo.Suk@drbc.nj.gov>; Yagecic, John <John.Yagecic@drbc.nj.gov>; Bergman, Erica <Erica.Bergman@dep.nj.gov>; Goodrow, Sandra <Sandra.Goodrow@dep.nj.gov>

Subject: RE: GenX and other PFAS in Delaware River

Mark, Erica and Sandra,

The DRBC is able to sample the Delaware River as requested below however, keeping in mind that the outfalls are in a tidal river with water moving two directions and the information we have on the differences in the Solvay and Chemours outfall configurations, we think a combined effluent and receiving water sample would be most informative.

Proposed sampling:

Solvay samples (effluent, two samples in river one above and one below outfall)

Chemours samples (effluent and one river sample downstream of diffuser)

River samples collected during ebbing tide and low flow.

Is NJDEP collecting effluent samples from these facilities for analysis using the EPA methods or would the DRBC have to request effluent samples from the facilities?

Ron

Ronald MacGillivray, Ph.D. | Senior Environmental Toxicologist | Delaware River Basin Commission
P.O. Box 7360 | 25 Cozey Road | West Trenton, NJ 08628-0360 | 609.477.7252 | www.drbc.net



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From: Strynar, Mark [<mailto:Strynar.Mark@epa.gov>]

Sent: Monday, May 21, 2018 8:35 AM

To: MacGillivray, Ron <Ron.MacGillivray@drbc.nj.gov>; Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>

Cc: Post, Gloria <Gloria.Post@dep.nj.gov>; Suk, Namsoo <Namsoo.Suk@drbc.nj.gov>; Yagecic, John <John.Yagecic@drbc.nj.gov>; Bergman, Erica <Erica.Bergman@dep.nj.gov>; Goodrow, Sandra <Sandra.Goodrow@dep.nj.gov>

Subject: RE: GenX and other PFAS in Delaware River

Ron,

I think there are really two samples in my mind that should be collected:

The Solvay wastewater outfall

The Chemours wastewater outfall

Matched samples of the receiving water body just upstream of the outfall at each location would be very beneficial as well. We don't have the capacity for a full investigation of the Delaware river.

Mark

From: MacGillivray, Ron [<mailto:Ron.MacGillivray@drbc.nj.gov>]

Sent: Thursday, May 17, 2018 9:11 AM

To: Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>; Strynar, Mark <Strynar.Mark@epa.gov>

Cc: Post, Gloria <Gloria.Post@dep.nj.gov>; Suk, Namsoo <Namsoo.Suk@drbc.nj.gov>; Yagecic, John <John.Yagecic@drbc.nj.gov>; Bergman, Erica <Erica.Bergman@dep.nj.gov>; Goodrow, Sandra <Sandra.Goodrow@dep.nj.gov>

Subject: GenX and other PFAS in Delaware River

Andy and Mark,

The DRBC can collect samples along the entire length of the Delaware River and Bay if EPA can analyze the samples and share the data.

Ron

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From: Bergman, Erica
Sent: Monday, May 14, 2018 11:26 AM
To: MacGillivray, Ron <Ron.MacGillivray@drbc.nj.gov>
Subject: FW: New Paper on GenX and other PFAS Worldwide

Ron,
You may already have this...
I thought you may find this interesting, it includes sampling of the Delaware River.

Erica Bergman

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From: Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>
Sent: Monday, May 14, 2018 7:26 AM
To: Maddaloni, Mark <Maddaloni.Mark@epa.gov>
Cc: Bergman, Erica <Erica.Bergman@dep.nj.gov>; Goodrow, Sandra <Sandra.Goodrow@dep.nj.gov>; Post, Gloria <Gloria.Post@dep.nj.gov>; Strynar, Mark <Strynar.Mark@epa.gov>
Subject: New Paper on GenX and other PFAS Worldwide

Mark,

Here's a new paper on GenX and many other PFAS.

Most of it is focused on China, but there are other samples collected worldwide.

It is interesting to see that GenX (called HFPO-DA in this paper) has been measured in the Delaware River at a mean concentration of 3.3 ng/L.

Detailed sampling information including site GSP coordinates are listed in the Supporting Information:

D1	Delaware River	Trenton	U.S.	-74.80753	40.22718	Dec 17, 2016
D2	Delaware River	Trenton	U.S.	-74.74372	40.17455	Dec 17, 2016
D3	Delaware River	Bristol	U.S.	-74.85089	40.09172	Dec 17, 2016
D4	Delaware River	Philadelphia	U.S.	-74.97192	40.05412	Dec 17, 2016
D5	Delaware River	Philadelphia	U.S.	-75.06169	39.98700	Sep 24, 2016
D6	Delaware River	Philadelphia	U.S.	-75.13495	39.91906	Sep 24, 2016
D7	Schuylkill River (tributary)	Philadelphia	U.S.	-75.27715	40.06470	Sep 24, 2016
D8	Schuylkill River (tributary)	Philadelphia	U.S.	-75.19123	39.99248	Sep 24, 2016
D9	Delaware River	Chester	U.S.	-75.37662	39.81417	Dec 17, 2016
D10	Delaware River	Delaware	U.S.	-75.56372	39.57996	Dec 17, 2016
D11	Delaware River	Smyrna	U.S.	-75.46468	39.33054	Dec 17, 2016
D12	Delaware River	Frederica	U.S.	-75.39557	39.10128	Dec 17, 2016

In any case, GenX (HFPO-DA) seems to have a wide ranging geographical distribution, including many sites along the Delaware River.

I think it would be very informative to collect samples along the entire length of the Delaware.

Thank you,

Andy